

4.8.1 Purpose & Intent

This part is intended: (i) to promote, preserve, and enhance the important hydrologic, biological, ecological, aesthetic, recreational, and educational functions that river and stream corridors, lakes and other critical waterways, wetlands, and their associated riparian areas provide in Jefferson County; (ii) to guide development on sites with environmental constraints consistent with the Cornerstone 2020 Comprehensive Plan; (iii) to locate development, where possible, in areas that do not have severe environmental limitations and to protect natural areas and features as a part of development planning, by designating buffer areas that will guide future development adjacent to protected waterways; (iv) to minimize water pollution, including sediment and other pollutants in surface runoff; to promote bank stabilization; to protect riparian wetlands and their wildlife habitats; (v) generally to promote land use policies which will maintain or improve water quality levels; (vi) to implement goals of the Clean Water Act.

The following terms relating to Waterways & Wetlands Protection are included in the Definitions (Chapter 1 Part 2):

Top of Bank or Stream Bank, Impervious Surface Area, Land Disturbing Activity, Protected Waterway, Riparian Area, Riparian Vegetation, Riprap, Wetlands

4.8.2 Applicability & Exemptions

A. Applicability.

Unless exempt by subsection B.2 below, this part shall apply to any land disturbing activity and to all new subdivisions, including the expansion or reconstruction of buildings and impervious surface areas existing on March 1, 2003 that occur within a buffer area of a Protected Waterway.

B. Exemptions.

The following developments shall be exempt from this Part's standards:

1. Agricultural Operations as defined in KRS 224.71-100 through 140;
2. The expansion of the building footprint of a residential building existing on March 1, 2003 when the expansion is less than 50% of the building footprint on said date.
3. The expansion of the building footprint of a non-residential building existing on March 1, 2003 when the expansion is less than 10% of the building footprint on that date.

4. A legal lot of record zoned for one and only one single family detached dwelling may be developed (subject to the Development Plan review procedures stated in **Chapter 11 Part 6** of this Land Development Code) for one such dwelling provided that the intrusion into the required buffer is the minimum necessary to accommodate the proposed use.
5. Docks, boat launches, structures which accommodate public water supply intake, water quality treatment plant sewer lines and outfalls, and other uses which, owing to their water dependent nature, cannot be located anywhere but within a designated Buffer Area.

4.8.3 Establishment of Buffer Areas and their Boundaries.

A. Applicability.

Buffer Areas shall be established along Protected Waterways, which shall include the following waterways:

1. Any perennial stream or river (or portion thereof) that is portrayed as solid on the United States Geological Survey 7.5 minute quadrangle maps, of the most recent edition;
2. Wetlands greater than 0.1 acre and subject to federal jurisdiction of the U.S. Environmental Protection Agency and the Army Corps of Engineers; and
3. Lakes with a permanent pool elevation greater than 3 acres in size if they constitute "waters of the Commonwealth" as defined in KRS 224.
4. Other water bodies that have been designated through nomination and legislative approval. A water body may be nominated as a Protected Water Body by resolution of the legislative body(ies) or by resolution of the Planning Commission. The Planning Commission shall conduct a public hearing and recommend candidates for designation to the legislative body(ies) with jurisdictional control which shall have final designation authority.

NOTE: In general, lakes formed by impoundment of streams are subject to this regulation.

Buffer areas are established by this Part along all protected waterways located in Jefferson County, except that more restrictive buffer areas established in Special Districts pursuant to **Chapter 3** of the LDC supersede the requirements of this part.

B. Approval Required.

Specific and final buffer area boundary delineations shall be determined by the Planning Director, or designee.

- C. The minimum Buffer Area requirements established by this Part for water bodies other than wetlands are either:
1. The minimum width as set forth in Table 4.8.1 below. Type A Buffer Areas and the Streamside Zone of Type B Buffer Areas are measured from the top of the bank of the protected stream;
 2. The alternative buffer width and design, approved by the USDA Natural Resources Conservation Service, provided it meets the agency's standards and specifications for riparian buffers. Sites located in form districts otherwise subject to Type B buffer requirement (Table 4.8.1) are eligible for alternative buffer widths, at the applicant's discretion,

Table 4.8.1		
Type of Protected Waterway	Buffer Area Type & Minimum Buffer Area Width (Feet) By Form District	
	Type "A" Buffer Area Applies in the Following Form Districts:	Type "B" Buffer Area Applies in the Following Form Districts:
	<ul style="list-style-type: none"> • Downtown • Traditional Neighborhood • Traditional Marketplace Corridor • Traditional Workplace • Village FD Center 	<ul style="list-style-type: none"> • Regional Marketplace Center • Town Center • Suburban Marketplace Corridor • Neighborhood • Suburban Workplace • Campus • Village FD Area outside of Center
Protected Waterways Other than Wetlands	Total Buffer Area = 25 feet	Total Buffer Area = 100 feet, comprised of the following 3 zones: 1. Streamside zone: 25 feet; 2. Middle zone: 50 feet. 3. Outer zone: 25 feet.

4.8.4 Modifications or Variances of Buffer Area Boundaries

A. Permitted Minor Modifications from Buffer Area Requirements

A 25% reduction in the buffer width is permitted on a portion of the property if it is offset by an increase of the buffer width on an equal or greater portion of the same property with the result that the average buffer area width for the property is equal to or greater than that specified in Table 1.

B. Variances – Additional Criteria

1. Buffer Area Requirements are dimensional requirements with respect to which variances may be requested as specified in KRS 100.243. In addition to the applicable criteria for variances provided by statute, the following factors may be considered in such a variance request.
 - a. The variance is necessary because the requirements of this section represent an extreme hardship such that minimal or no reasonable economic use of the land is available without reducing the width of the required Buffer Area.
 - b. The size, shape, or topography of the property, as of March 1, 2003, is such that it is not possible to construct a single family detached dwelling without encroaching into the required Buffer Area.
 - c. Encroachment into the required Buffer Area shall be limited to the minimum necessary to accommodate the proposed use.
 - d. The Applicant shall commit, to the satisfaction of the County, to mitigation measures that substantially offset any potential adverse impacts of the proposed encroachment during site preparation, construction, and post-construction.
 - e. Approval of the variance will not result in a reduction in water quality.

4.8.5 Wetlands Delineation & Protection Standards

- A. Delineation of Wetland Boundaries.
 1. Mapped Wetlands. Boundary delineation of wetlands shall be established using Hydric Soils as a preliminary indicator of wetlands that may meet jurisdictional requirements.
 2. Disputed Wetlands. If a wetlands has not been mapped, or its boundaries not clearly established, or if either the County or Applicant dispute the existing boundaries, the Applicant shall retain a qualified person with demonstrated expertise in the field to delineate the boundaries of the wetland in keeping with the standards specified in *The Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (January 1987). Subsequent revisions of the *Delineation Manual* shall not be incorporated into this delineation methodology.
- B. Compliance with Applicable Federal Wetlands Laws or Regulations

1. **Prohibited Activities.** No person shall engage in any activity that shall disturb, remove, fill, drain, dredge, clear, destroy, or alter any area, including vegetation, within a wetlands that falls in the jurisdiction of the federal government and its agencies, except as may be expressly allowed under applicable federal laws or regulations. Draining any wetland that falls in the jurisdiction of the federal government and its agencies is prohibited except in keeping with the provisions of paragraph 2, below.
2. **Federal Approvals Prerequisite to County Approval.** The County shall not grant final approval to any land disturbing activity, development, or subdivision in a wetlands that falls within the federal government's jurisdiction until the Applicant demonstrates that all necessary federal approvals and permits have been obtained.

C. **Wetland Buffer Width and Use Restrictions**

1. **Width**

Wetland buffer areas shall be at least 25 feet in width. The total width and design shall conform with USDA Natural Resources Conservation Service criteria, but shall not exceed 100 feet.

2. **Permitted Uses and Activities**

Uses shall be as specified in section 4.8.6.

4.8.6 Standards for Protected Waterways and All Buffer Areas

A. **General Rule.**

No land-disturbing activity, development, or subdivision of any type shall occur in a protected waterway or Buffer Area, except as expressly allowed in this part and other applicable County, state, or federal laws and regulations. The County shall not approve any land-disturbing activity, development, or subdivision until the Applicant obtains all other necessary county, state, and/or federal permits. All Buffer Areas shall remain in a vegetated, natural state and shall not be modified in any manner except as expressly allowed in this section. Plant material adequate for filtering surface drainage shall be maintained within all Buffer Areas.

B. **Permitted Uses and Activities in the 100-Year Floodplain.**

Any land disturbing activity, development, or subdivision in the 100-year floodplain shall demonstrate compliance with the Jefferson County Floodplain Ordinance, as amended.

C. Uses Permitted in the Type A Buffer Areas and the Streamside Buffer Zone.

Within a Type "A" Buffer Area and the Streamside Zone of a Type "B" Buffer Area, allowable uses and activities are restricted to:

1. Public flood control structures,
2. Utility rights of way (Type A buffer only),
3. Pedestrian-only trails, and
4. Road crossings, where permitted.

D. Uses Permitted in the Middle Buffer Zone.

Allowable uses and activities within the middle zone of a Type B Buffer Area are restricted to:

1. Utility rights of way
2. Biking or hiking trails,
3. Stormwater management and sediment control facilities approved by the MSD,
4. Recreational uses that entail no impervious surfaces, or are approved by the Planning Commission.

E. Uses Prohibited in the Outer Buffer Zone.

The following uses and activities are not allowed within the outer zone of a Type B Buffer Area:

1. Septic systems, and
2. Permanent structures or impervious surface coverage with a footprint of greater than 100 square feet, with the exception of approved recreational trails.

F. Wetlands and Alternative Type B Buffers

The first 25 feet of wetland and alternative buffers shall meet the use restrictions established for the Streamside Buffer Zone (paragraph C, above). For buffers less than 50 feet in width, the balance of the buffer area shall meet the Middle Buffer Zone restrictions (paragraph D, above). For buffers more than 50 feet in width, one-half the width outside the first 25 feet may be used in accordance with the Middle Buffer Zone restrictions and one-half may be used in accordance with the Outer Buffer Zone restrictions.

G. Location of Platted Lots in Buffers Areas.

1. Any lot contained within a preliminary subdivision plat and intended for development shall be platted outside Type A Buffer Areas, and outside the Streamside and Middle zones of all Type B Buffer Areas.
2. The prohibition on development lots in this subsection shall not preclude the designation of the Buffer Area as a tract of land within the preliminary and final plats related to such real property, provided there is a plat note on such preliminary and final plat that references that the Buffer Area is subject to the terms and conditions of this section and that the Buffer Area tracts are clearly identified as non-buildable tracts.

NOTE: *The application of pesticides and herbicides within Type A and the first 75 feet of Type B Buffer Areas is strongly discouraged.*

H. Prohibited Uses and Activities in Buffer Areas.

The following uses and activities are prohibited in all Buffer Areas because of their proven potential for water pollution:

1. Storage of hazardous substances and fertilizers.
2. Above or below ground petroleum storage facilities.
3. Drain fields from on-site sewage disposal and treatment system (i.e., septic systems).
4. Raised septic systems.
5. Solid waste facilities, such as landfills and including junkyards.
6. Confined animal feedlot operations.
7. Subsurface discharges from a wastewater treatment plant.
8. Land application of biosolids.
9. Filling and/or excavation activities other than those attendant to uses specifically authorized.

I. Recreation, Education, or Scientific Activities Allowed.

Structures and improvements for recreational, educational, or scientific activities, including but not limited to fishing access and wildlife management and viewing, may be permitted in a Buffer Area, provided a management plan that establishes long-term protection of the Buffer Area is submitted with the final plat or plan and is approved by the County.

J. Stream and Buffer Area Crossings: Roads, Bridges, Trails, and Utilities.

Roads, bridges, trails, and utilities are permitted in a Buffer Area and may cross the protected waterway, subject to the Planning Commission's approval based on the recommendations of the Public Works and DPDS and the MSD.

1. The Applicant shall restore any disturbance of the Buffer Area and protected waterway by re-grading and re-vegetation. See paragraph K, "Restoration," below for applicable standards. Provisions for restoration of the disturbed area shall be included in any development or subdivision agreement for the project, with adequate security to guarantee that the restoration will be completed.
2. The right-of-way shall be the minimum width necessary for installation, access, and maintenance.
3. Access for maintenance of utilities in Buffer Areas should be at specific points rather than parallel to the utility corridor.
4. The angle of any crossings shall be perpendicular to the protected waterway or Buffer Area in order to minimize clearing and other land disturbance, unless the Planning Commission finds based on comments from MSD, Public Works or the Planning Director that a perpendicular alignment is not feasible.
5. The number of road crossings shall be the minimum number necessary to provide for adequate transportation connections as required in this Land Development Code.
6. No more than one fairway crossing associated with a permitted golf course use shall be allowed for every 1,000 linear feet of Buffer Area.
7. Trench crossings of rock streambeds visible through the water column or exposed on a seasonal basis shall be restored to a natural appearance using grouting techniques.
8. Plans for the crossing submitted with the application shall identify the alignment of the crossing, the proposed construction techniques, the proposed construction and working easements, and mobilization, staging and temporary disposal areas.

K. Restoration.

At the time of development, the following restoration standards shall be met.

1. Restoration Required to Stabilize Banks. Riparian vegetation shall be planted, as necessary, to stabilize the banks of a protected waterway within a Buffer Area. Where a bank is denuded of its vegetation due to erosion, slope failure or similar occurrence, appropriate vegetation shall be planted to quickly establish a vegetative cover, and then replanted with riparian vegetation to ensure the long-term stabilization of the bank. Restoration plantings shall be selected from the MSD native species restoration specifications.
2. Restoration of Eroded Banks Required. Where stream bank erosion has occurred as a result of on-site development activities, riparian vegetation shall be planted to stabilize the stream bank unless the County determines such vegetation would be inadequate to re-stabilize the bank. In instances where the County determines that planting of riparian vegetation is inadequate to stabilize the stream bank alternate methods of stabilization, approved by the County shall be utilized.
3. Other Restoration Allowed. Stream, stream bank, and vegetation restoration projects are allowed where the goal is to restore the protected waterway, wetlands, or Buffer Area to an ecologically healthy state, as approved by MSD.

L. Water Quality Monitoring Allowed.

Water quality monitoring and stream gauging are allowed within the protected waterway and Buffer Area, as approved by the DPDS or by MSD.

M. Tree and Vegetation Removal.

1. Existing, healthy trees and vegetation within a Buffer Area shall be preserved
2. This provision shall not prohibit any of the following:
 - a. Removal of dead or diseased trees/vegetation (provided a live root system stays intact),
 - b. Removal of noxious weeds;
 - c. Removal of non-native trees/vegetation that threaten native species growth or reintroduction,
 - d. Removal of fallen trees, tree limbs, brush and similar debris that accumulate naturally in river/stream beds and that impede river/stream flow, or
 - e. Removal of any other tree/vegetation that is a threat to the public health or safety.

- f. Removal of trees as part of an approved plan for stream side recreation or access (e.g. pedestrian trail) or as part of an approved utility or road construction project.

4.8.7 Credit for Open Space

All protected waterways and their Buffer Areas shall count as open space for the purposes of **Chapter 10 Part 5** "Open Space Standards" of this Land Development Code.